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EXAMINER	
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2181	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,047	WANG ET AL.	
	Examiner	Art Unit	
	ZACHARY K. HUSON	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *48-86,88 and 89* is/are pending in the application.

4a) Of the above claim(s) *64-67 and 79-85* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *48-63,68-78,86,88 and 89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 48 – 63, 68-78, 86 and 88 - 89 are currently pending.

2. Claims 1-47 and 87 are canceled.

3. Claims 64-67 and 79-85 are withdrawn.

4. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

5. Claim 48 is objected to because of the following informalities: the word "carries" in the sixth line of the claim should be underlined as it is a new to the claim. Appropriate correction is required.

6. Claim 59 is objected to because of the following informalities: the word "the" in the fifth line of the claim immediately following the word "packets" should be removed from the claim. Appropriate correction is required.

7. Claim 88 is objected to because of the following informalities: Claim 88 depends from the cancelled claim 87. Claim 88 should be updated to depend from claim 86. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 48- 59, 68 - 70 and 86 – 89 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang (US 2004/0088456).

As per claim 48:

Zhang discloses a data transport interface between a digital signal processing host and an external service module, comprising a transceiving unit, configured to receive from and transmit to the digital signal processing host device data which accords with a USB (Universal Serial Bus) specification (Zhang: Page 1 paragraph [0019]); a detecting unit, configured to detect USB packets received by the transceiving unit, so as to determine whether the received USB packets carries data which accords with a particular specification and is available for the external service module (Zhang:

Figure 13 block 138uc determines that the data is MPEG and Page 7 paragraph [0090]); an interface protocol identification unit, configured to identify an interface protocol of the external service module (Zhang: Page 7 paragraph [0090], the USB controller receives the USB packets, has to identify them as containing MPEG data); and a conversion unit, configured to convert the received USB packets to obtain the data which accords with the particular specification when determining that the received USB packets carries the data which accords with the particular specification (Zhang: Figure 13b, blocks 138uc and 128md, converting the data from the USB packets into the MPEG data), and configured to convert transmission data from the external service module which accords with the particular specification into data which accords with the USB specification for transmission via the transceiving unit based on the identified protocol of the external service module (Zhang: Figure 12c block 128uc and Page 7 paragraph [0088], converting Raw video into MPEG then into USB).

As per claim 49:

Zhang discloses the conversion unit comprises an unpackaging unit configured to unpackage the received data into the data which accords with the particular specification (Zhang: Figure 12c block 128me).

As per claim 50:

Zhang discloses the conversion unit comprises a packaging unit, configured to package the transmission data into the data which accords with the USB specification (Zhang: Figure 12c, block 128uc).

As per claims 51 and 88:

Zhang discloses the conversion unit comprises a packaging unit, configured to package the transmission data into the data that accords with the USB specification (Zhang: Figure 12c, block 128uc).

As per claims 52 and 89:

Zhang discloses that the particular specification is a MPEG specification (Zhang: Page 7 paragraph [0088]).

As per claim 53:

Zhang discloses a P/S conversion unit, configured to convert parallel synchronous transmission data which accords with the MPEG specification into serial asynchronous data which accords with the USB specification; wherein the data which accords with the USB specification includes an integer multiple of packets which accord with the MPEG specification (Zhang: Page 7 paragraph [0088]).

As per claim 54:

Zhang discloses an S/P conversion unit, configured to convert the received serial asynchronous data which accords with the USB specification into parallel synchronous data which accords with the MPEG specification (Page 7 paragraph [0090]).

As per claim 55:

Zhang discloses that any one of the data which accords with the USB specification and the data which accords with the MPEG specification comprises at least one of service data and control information, the control information being used to control operations of a device equipped with the interface (Zhang: page 7 paragraph s [0088] and [0090]).

As per claim 56:

Zhang discloses that the service data comprises at least one of audio data and video data (Zhang: Page 7 paragraphs [0088] and [0090]).

As per claim 57:

Zhang discloses that the control information comprises at least one of information for implementing PNP (Plug and Play) function, information on resource allocation and information on the transmission rate to be used (Zhang: Page 1 paragraph [0020]).

As per claim 58:

Zhang discloses that the control information may be transmitted in a data transfer mode of at least on of a bulk data transfer and interrupt data transfer in the USB specification (Zhang: Page 1 paragraph [0020]).

As per claim 59:

Zhang discloses a data transport interface, comprising a transceiving unit, configured to receive and transmit data which accords with a USB (Universal Serial Bus) specification (Zhang: Page 1 paragraph [0019]); a detecting unit, configured to detect the USB packets received by the transceiving unit, to determine whether the received USB packets data which accords with a particular specification and is available for the digital signal processing apparatus (Zhang: Figure 13b and page 7 paragraph [0090] the USB controller determines whether the packet contains MPEG data); an interface protocol identification unit, configured to identify an interface protocol of an external service module (Zhang: Figure 13b, interpreting USB controller of performing the identifying of the protocol); and a conversion unit, configured to convert the received

USB packets to obtain the data which accords with the particular specification when determining that the received USB packets carries the data which accords with the particular specification (Zhang: Page 7 paragraph [0090] if the USB packets contain MPEG data it is converted), and to convert the transmission data which accords with the particular specification into data which accords with the USB specification for transmission to the external service module via the transceiving unit based on the identified interface protocol of the external service module (Zhang: Figure 12c block 128uc and page 7 paragraph [0088], converting the MPEG data into USB data); wherein the particular specification is a MPEG specification (Zhang: Page 7 paragraph [0088]); and a processing unit, configured to perform at least one of playing, decrypting and storing the signals received via the interface (Figure 12c).

As per claims 69:

Zhang discloses that a control unit, configured to extract a control command from the signals received via the interface; wherein the playback unit plays the decoded audio /video signals according to the control command (Zhang: Figure 13b, block 138uP and Page 7 paragraph [0090]).

As per claim 68:

Zhang discloses that the processing unit comprises an audio decoding unit, configured to decode audio signals received via the interface, and to provide the decoded audio signals to the playback unit for playing (Zhang: Figure 13b); a video decoding unit, configured to decode video signals received via the interface, and to provide the decoded video signals to the playback unit for playing (Zhang: Figure 13b);

a playback unit, configured to play the decoded audio/video signals received via the interface (Zhang: Figure 13b).

As per claim 70:

Zhang discloses that the control command further comprises EPG (Electronic Program Guide) information (Zhang: Page 6 paragraph [0074]).

As per claim 86:

Zhang discloses a data transfer method between a digital signal processing host device and an external service module, comprising the steps of receiving data which accords with a USB specification from the digital signal processing host device (Zhang: Page 1 paragraph [0019]); detecting the received USB packets to determine whether the received packets carries processing data which accords with a particular specification and is available for the external service module (Zhang: Figure 13 block 138uc determines that the data is MPEG and Page 7 paragraph [0090]); identifying an interface protocol of the external service module (Zhang: Page 7 paragraph [0090], the USB controller receives the USB packets, has to identify them as containing MPEG data); converting the received USB packets to obtain the processing data which accords with the particular specification after determining that the received USB packets carries the processing data which accords with the particular specification (Zhang: Figure 13b, blocks 138uc and 128md, converting the data from the USB packets into the MPEG data) converting transmission data which accords with the particular specification into data which accords with the USB specification, based on the identified interface protocol of the external service module (Zhang: Figure 12c block 128uc and Page 7 paragraph

[0088], converting Raw video into MPEG then into USB); and transmitting to the external service module the converted transmission data which accords with the USB specification (Zhang: Figure 12c).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 60 – 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang as applied to claim 59 above, and further in view of Robertson (US 2001/0047441).

As per claim 60:

Zhang is silent on a RF processing unit, configure to demodulate the RF signals received by the digital signal processing apparatus, to transmit the demodulated signals via the interface.

However Robertson teaches a RF processing unit, configure to demodulate the RF signals received by the digital signal processing apparatus, to transmit the demodulated signals via the interface (Robertson: Page 3 paragraph [0042]) so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zhang with the RF processing unit as taught by Robertson so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

As per claim 61:

Zhang discloses that the processing unit comprises an audio decoding unit, configured to decode audio signals received via the interface, a video decoding unit, configured to decode video signals received via the interface (Zhang: Figure 12c); a playback unit, configured to play the decoded audio/video signals (Zhang: Figure 13b).

As per claim 62:

Zhang discloses that a control unit, configured to extract a control command from the signals received via the interface; wherein the playback unit plays the decoded audio /video signals according to the control command (Zhang: Figure 13b, block 138uP and Page 7 paragraph [0090]).

As per claim 63:

The modified Zhang is silent on the RF processing unit being configured to transmit the control commands.

However Robertson teaches the RF processing unit is further configured to transmit the control command (Robertson: Page 3 paragraph [0042]) so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zhang with the RF processing unit as taught by Robertson so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

12. Claims 71 - 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang as applied to claim 59 above, and further in view of Eskicioglu (US 7254236, hereinafter referred to as Eskicioglu).

As per claim 71:

Zhang does not specifically disclose an acquisition unit, configured to acquire a user key; a filtering unit, configured to filter the signals received via the interface, to obtain authorization information for a user; a decryption unit, configured to perform decryption on the authorization information according to the user key, to obtain a de-scrambling key; and a de-scrambling unit, configured to de-scramble the signals received via the interface according to the de-scrambling key.

However Eskicioglu teaches of an acquisition unit, configured to acquire a user key (Eskicioglu column 3 lines 29 – 49); a filtering unit, configured to filter the signals received via the interface, to obtain authorization information for a user (Eskicioglu: Column 3 lines 50 - 64); a decryption unit, configured to perform decryption on the authorization information according to the user key, to obtain a de-scrambling key (Eskicioglu: Column 3 lines 29 - 49); and a de-scrambling unit, configured to de-scramble the signals received via the interface according to the de-scrambling key

(Eskicioglu: Column 3 lines 29 - 49) so that the user is able to unscramble the incoming video content (Eskicioglu: Column 3 lines 40 - 45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zhang with the acquisition, filtering decryption and descrambling unit along with the keys as described by Eskicioglu so that the user is able to unscramble the incoming video content (Eskicioglu: Column 3 lines 40 - 45).

As per claim 72:

The modified Zhang discloses that the descrambling unit sends the descrambling signals via the interface (Eskicioglu: Figure 2).

As per claim 73:

The modified Zhang discloses a communication interface module, configured to receive and transmit data which accords with a particular transport protocol (Zhang: Figure 13b).

As per claim 74:

The modified Zhang discloses the particular transport protocol comprises at least one of Ethernet transport protocol, Cable Modem transport protocol, SmartCard transport protocol, and wireless protocol (Zhang: Figure 13b, interpreting it as using a SmartCard protocol).

As per claim 75: The modified Zhang discloses that the de-scrambled signals are transmitted via the communication interface module (Eskicioglu: figure 2).

As per claim 76: The modified Zhang discloses a control unit, configured to generate control information according to a user requirement; wherein the control

information may be transmitted via the interface (Zhang: Figure 3ab, and Page 2 paragraph [0031]).

13. Claims 77 – 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Eskicioglu as applied to claim 72 above, and further in view of Robertson.

As per claim 77:

The modified Zhang is silent on a RF processing unit, configure to demodulate the RF signals received by the digital signal processing apparatus, to transmit the demodulated signals via the interface.

However Robertson teaches a RF processing unit, configure to demodulate the RF signals received by the digital signal processing apparatus, to transmit the demodulated signals via the interface (Robertson: Page 3 paragraph [0042]) so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zhang with the RF processing unit as taught by Robertson so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

As per claim 78:

The modified Zhang discloses that a control unit, configured to generate control information according to a user requirement (Zhang: Figure 13b, block 138uP and Page 7 paragraph [0090]).

The modified Zhang does not specifically disclose that the RF processing unit is configured to transmit the control information.

However Robertson teaches the RF processing unit is further configured to transmit the control information (Robertson: Page 3 paragraph [0042]) so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zhang with the RF processing unit as taught by Robertson so that communication can exist over a low cost, short range radio channel (Robertson: Page 3 paragraph [0042]).

Response to Arguments

14. Applicant's arguments filed 6/28/2010 have been fully considered but they are not persuasive. See remarks below.

The applicant argues:

According to the interface of new claim 1, when receiving data from the a digital signal processing host device, the received USB packets are converted to obtain data which can be received and processed by the external service module. The interface of claim 1 is suitable for various service modules and conversion between data of various protocols and USB data, not being limited to conversion of MPEG data to USB data. But Zhang only recites "MPEG encoder 128me converts raw video data to MPEG-format before sending it to the HDD in the USB format" [paragraph 0088], and "USB controller 138uc converts USB data into MPEG data" [paragraph 0090]. Further, Zhang fails to disclose the detecting unit and converting unit, thus the HDD of Zhang cannot convert data of various protocols or formats and is only suitable for converting MPEG data, or asynchronous data of PES format in MPEG protocol. According to the interface of new claim 1, before transmitting data from the external service module to the digital signal processing host device, an interface protocol of the external service module is identified, transmission data is converted into USB data based on the identified interface protocol. Thus the interface of the present invention can transmit data or data streams of various protocols or formats, for example, parallel synchronous data, parallel asynchronous data, serial synchronous data and serial asynchronous data.

The present invention provides a universal bi-directional data transport interface (UTI) based on the USB specification, which has good universality and extensibility and can be applied to connect devices or modules for various types of services (paragraph [0038]).

In response:

The claims do not specifically describe that the invention is processing a plurality of different data protocols. As the claims are written, the USB data only need be converted to one type of data protocol. Until the claims are amended in such a way that it is clear that there are a plurality of different protocols of data that are be carried by the USB packets, the Zhang reference that teaches the conversion of data within the USB packets into MPEG data covers the language of the claims. The USB controller unit as cited in the rejection above is interpreted as performing the functionality of detecting and identifying the protocol of the data in the USB packets. This can be overcome by amending the claims to clearly state that a plurality of protocols are to be identified rather than a single protocol.

The applicant argues:

Zhang fails to teach or suggest the above features of claim 1 and cannot achieve the above technical effects. Thus the new claim 48 is not anticipated by Zhang or obvious in view of Zhang.
Claims 59 and 86 are amended to include features which are the similar to those recited in claim 48 or correspond to features of claim 48.
In light of the foregoing, Zhang does not teach or suggest each and every limitation of claims 49, 58, and 86. As such, claims 49, 58, and 86 are allowable over Zhang. Claims 49-58, 60-85 and 88-89 depend from claims 49, 58, and 86 respectively and are also allowable over Zhang for these and other reasons.

In response:

The claims remain rejected for at least the reasons set forth in the rejections and arguments above.

The applicant argues:

The Examiner rejected claims 60 and 63 under 35 U.S.C. §103(a) as being unpatentable over Zhang in view of Robertson (U.S. Publication No. 2001/0047441).
Claims 60 and 63 depend from claim 59 and add additional limitations. As discussed, Zhang does not teach or suggest each and every limitation of claim 59, much less those of claims 60 and 63.
Robertson does not cure the deficiencies of Zhang. Robertson is cited for a teaching relating to an RF processing unit configured to transmit the control commands. However, Robertson does not teach or suggest, nor does the Examiner allege that Robertson teaches or suggests anything regarding a detecting unit, an interface protocol identification unit, or a method for transmission between the digital signal processing host device and the external service module as recited in the independent claims.
In light of the foregoing, Zhang and Robertson, alone or in combination do not teach or suggest each and every limitation of claim 58. As such, claim 58 is allowable over Zhang and Robertson. Claims 60 and 63 depend from claim 58 and are also allowable over Zhang and Robertson for these and other reasons.

In response:

Claims 60 and 63 depend from claim 59. Claim 59 remains rejected for the reasons set forth in the rejections and arguments above, and as such claims 60 and 63 remain rejected.

The applicant argues:

The Examiner rejected claims 71-76 under 35 U.S.C. §103(a) as being unpatentable over Zhang in view of Eskicioglu (U.S. Patent No. 7,254,236).
Claims 71-76 depend from claim 59 and add additional limitations. As discussed, Zhang does not teach or suggest each and every limitation of claim 59, much less those of claims 71- 76.
Eskicioglu does not cure the deficiencies of Zhang. Eskicioglu is cited for a teaching relating to an acquisition unit. However, Eskicioglu does not teach or suggest, nor does the Examiner allege that Eskicioglu teaches or suggests anything regarding a detecting unit, an interface protocol identification unit, or method for transmission between the digital signal processing host device and the external service module as recited in the independent claims.
In light of the foregoing, Zhang and Eskicioglu, alone or in combination do not teach or suggest each and every limitation of claim 58. As such, claim 58 is allowable over Zhang and Eskicioglu. Claims 71-76 depend from claim 58 and are also allowable over Zhang and Eskicioglu for these and other reasons.

In response:

Claims 71 – 79 depend from claim 59. Claim 59 remains rejected for the reasons set forth in the rejections and arguments above, and as such claims 71-79 remain rejected.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZACHARY K. HUSON whose telephone number is (571)270-3430. The examiner can normally be reached on Monday-Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. K. H./
Examiner, Art Unit 2181

/Chun-Kuan Lee/
Primary Examiner, Art Unit 2181